







## CHAPTER IX.—Development and Restriction—

(i) Codes for the development of particular industries ..	53
(ii) Schemes of restriction .. .. .	54
(iii) Miscellaneous measures .. .. .	54

## CHAPTER X.—Protection—

(i) Iron and steel .. .. .	55
(ii) Cotton and other textiles .. .. .	62

CHAPTER XI.—Protection—*contd.*

(i) Sugar .. .. .	67
(ii) Paper .. .. .	70
(iii) Salt .. .. .	71
(iv) Miscellaneous industries .. .. .	72
(v) Safeguarding duties .. .. .	73
(vi) Removal of tariff anomalies .. .. .	74

## CHAPTER XII.—Government Purchases—

(i) General policy .. .. .	76
(ii) The Indian Stores Department .. .. .	77
(iii) Railway material .. .. .	79
(iv) Stationery .. .. .	80
(v) Provincial Governments .. .. .	82

INDEX .. .. .	84
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India officers should only stand in the relation of advisers to Local Governments, which may freely consult them ; and that the recommendations of the Indian Industrial Commission that an additional member for Industries should be appointed in the Governor General's Executive Council, that an Indian Industries Board should be constituted, and that Imperial Indian Chemical, Industrial and other services should be organized, should not be accepted."

Thus with the introduction of the Reforms, the provincial ministries assumed unfettered responsibility for the development of industries and for technical education ; the Central Government could enter on this field only by declaring, after consultation with the provinces, that the development of an industry was expedient in the public interest, and they could not spend money on such development without the sanction of the Secretary of State for India. A Department of Industries was created in the Central Government but, apart from its powers in respect of stores purchase, it had little scope for assisting industries. It attempted to secure some co-ordination with and among the provinces, but the provinces felt no great need for that co-ordination, and when severe retrenchment proved necessary in the Central Government in 1922-23, such activities were fairly obvious objects for the "axe". The Industries Conferences at which the Centre and Provinces took counsel ended, for many years, with the Fourth Conference in 1922 ; the two held after the introduction of the Reforms had shown clearly that the provinces did not desire to see the establishment of the Central Services which formed an important element in the Industrial Commission's Scheme. The Central Department of Industries was replaced by a Department of Industries and Labour which had an even smaller share in industrial policy than its predecessor : and the provinces pursued their way more or less in isolation. They had their own Departments of Industries, going back in some cases to a period before the Industrial Commission, and these, although financial difficulties necessitated a curtailment of activities in many cases, continued to pursue a fairly active policy\*.

But the Central Government, cut off though they were from industrial development in most directions, were brought into close touch with it in another as the result of the change in fiscal policy which took place in 1923 following the Report of the Indian Fiscal Commission. Prior to this the general policy of the Government of India had been to impose tariffs only for revenue purposes. A policy of discriminating protection was now adopted with the result

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\*This is reviewed in "The State and Industry."

ordination among the provinces. Recently, indeed, public opinion has shown a tendency to criticize the Central Government for not exercising powers of which they have largely been deprived.

One symptom and effect of the increasing desire for co-operation was the resumption in 1933, at the request of Provincial Governments, of the Industries Conference. In opening this Conference, His Excellency Lord Willingdon, referring to the changed outlook, said :

“ Eleven years have passed since the last of these Conferences was held ; much has happened since then and much has changed. The Governments of India and of the Provinces, as I remember well, were then trying to adjust themselves to the altered conditions that what are known as the Montagu-Chelmsford constitutional reforms had brought in their train ; and the most important work of the earlier Conferences was related to the demarcation of the spheres of action of the Central and Provincial Governments. There was, if I remember rightly, a little fear on the part of the Provinces that the Government of India, in the name of co-ordination, wished to trench on the responsibility that had just been handed over to Ministers, and a natural tendency to mistrust proposals for unified effort. It is perhaps partly a result of this that so long a time has elapsed since the last Conference of this kind was held.

But with the passing of the years such fears have, I hope and believe, vanished, and it is a happy augury that this Conference has been convened at the instance of Provincial Governments. I think we all realize now that, whatever arrangements are made in the constitutional field, there will remain the need for those who are faced with similar problems in different parts of India to take counsel together, to share the experience of their successes and their failures, and to guide their policy with some recognition of the needs not merely of their own areas but of India as a whole.....

We have arranged for this Conference, then, not with any idea of attempting to direct the policy that you, in your several spheres, should pursue, but primarily with the object of enabling you to discuss all these matters among yourselves. Most of the items on your agenda relate solely to the transferred subjects and we felt, as I know you feel, that the difficulties you are facing might be

industrial activity was much smaller than in western countries. Several industries continued to advance, and in many others the numbers employed at the depth of the depression were comparable with those of the prosperous period of 7 or 8 years before. The depression was accompanied in the official sphere by another wave of retrenchment. The Central Department of Industries and Labour, as a result of the retrenchment campaign of 1922-23, had been compelled to abandon much of its industrial activity, and presented little scope for further contraction in this field. But on the Provincial Departments, the effects were, in many directions, scarcely less severe than those of the earlier retrenchments.

In Madras, financial stringency led to drastic retrenchments in 1931-32 and the annual cost of running the Department of Industries which was Rs. 17 lakhs in 1929-30 fell to Rs. 6.63,000 in 1932-33. Peripatetic weaving parties were abolished. The Government Industrial Institute (Ink Factory) had to be closed. Scholarships and grants to industrial schools had to be cut down and a number of posts, *e.g.*, Leather Expert, Research Engineer and Ceramic Assistant, came under the axe.

In Bombay, the Retrenchment Committee of 1931-32 took the view that, even with the attenuated grants at his disposal, the Director of Industries had been able to give useful assistance to minor industries and added that it was desirable to retain the nucleus of a Department of Industries in being. But the Re-organization Committee appointed by Government recommended its abolition. The Government, however, did not accept the recommendation and retained the Department, to which the control of technical education was transferred from the Department of Public Instruction in 1931.

In Bengal, the post of Deputy Director of Industries which had been held in abeyance since 1924 was revived in 1934, while the post of Assistant Inspector of Weaving Schools which had practically remained vacant since its creation was abolished as a measure of retrenchment. Other retrenchments to the extent of Rs. 57,000 per annum were made in pursuance of the recommendations of the Bengal Retrenchment Committee, but the main branches of work remained unaffected. The Department of Sericulture was transferred from the Department of Agriculture to the Department of Industries on the recommendation of the Sixth Industries Conference.

In the United Provinces, the post of the Deputy Director of Industries, in charge of stores purchase work was abolished in November 1931 and his duties entrusted to the Director of Industries. In July 1932, the post of Principal of the Harcourt Butler Technological Institute was abolished and the Director of Industries was



## CHAPTER II.

### Technical Education.

#### (i) CHANGING CONDITIONS.

The importance of the advancement of technical and industrial education has long been appreciated both by the educated public and the Government, but progress in this direction was for some time slow. This was due partly to the hereditary aversion on the part of young men from the manual exertion which industrial or technical courses frequently demand and partly to the limited field of employment which industry offered.

But conditions have been slowly changing. The stress of unemployment among the middle-classes has brought home to parents and sons alike the increasingly small value from the pecuniary point of view of the purely literary type of education imparted in schools and colleges and the imperative necessity of seeking new fields of employment in industrial fields. The gradual development of industry has steadily widened the effective demand for the services of those who have received industrial training and has thus stimulated the expansion of schools and colleges to meet the need.

There are indications indeed that in some areas and spheres of employment the provision of technical education has outstripped the demand for trained men with the result that the unemployment which has for some time been marked among students who were trained for academic courses is now apparent among those who have received technical training. But where care has been taken to regulate admissions, institutions have proved able to offer their students good prospects of employment. Thus, for example, in the Indian School of Mines which was established by the Government of India at Dhanbad in 1926, up to the end of 1935, 114 students passed out after training in mining engineering. Of these over 100 are now known to be in paid employment and none of the students trained during 1932-35 is unemployed.

#### (ii) SCHOLARSHIPS ABROAD.

The question of providing Indians with a new career as Marine Engineers received the consideration of the Government of India. Practical training in the construction and erection of marine engines is an essential part of the training of a Marine Engineer and as

The following table gives the total number of scholarships awarded by each Provincial Government during the period under review and the number of such scholars, who on their return after completing their course of study, are known to have secured permanent employment :—

Province.					Scholars sent.	Scholars securing permanent employment.
Madras	..	..	..	..	12	5
Bombay	..	..	..	..	2	
Bengal	..	..	..	..	5	4
United Provinces	..	..	..	..	23	15
Punjab	..	..	..	..	4	2
Burma	..	..	..	..	6	1
Bihar and Orissa	..	..	..	..	20	12
Central Provinces	..	..	..	..	2	2
Assam	..	..	..	..	2	2

A few others are known to have secured temporary employment, two have remained in England and there are some whose subsequent career has not been traced. In Bihar and Orissa, in addition to the twelve who secured permanent employment, three set up in business independently ; one of these has been a Member of the Legislative Assembly.

### (iii) COLLEGES.

No new Engineering College was established during the period under review, but changes have taken place in the existing colleges. In the MacLagan College of Engineering opened at Moghulpura near Lahore in 1923, a third course of training was introduced in 1935. This course which is of two years duration and is undertaken in the college workshops, which have been considerably extended, is designed to enable boys of better education to qualify themselves for employment as artisans in workshops or to start work on their own account. The course will be mainly practical workshop training but will be supplemented by a small amount of class work in elementary mathematics, drawing and instruction descriptive of workshop processes.

In the Bihar College of Engineering, the overseer course has been thoroughly overhauled. The old artisan course has been improved by introducing lectures in theory. The mechanical apprentices courses started in 1923 to train apprentices in

about Rs. 1½ lakhs as non-recurring expenditure and Rs. 2½ lakhs per annum for 5 years as recurring expenditure. A proposal that the Institute should be administered directly by the Imperial Council of Agricultural Research with the Sugar Technologist to the Council as Director of the Institute, is under the consideration of the Government of the United Provinces. A grant of Rs. 30,000 per annum was also made by the Imperial Council of Agricultural Research towards the expenses of the Oil Section during the four years 1933-34 to 1936-37.

(iv) TECHNICAL AND INDUSTRIAL SCHOOLS.

Except in the Punjab, Madras and Bombay, there has been no increase in the number of Government Technical and Industrial Schools. Prior to 1928, in Madras, there was only one Government Industrial School at Madura which was taken over by Government from the District Board. In 1929, three new schools were established. two Industrial Schools at Calicut and Bellary and a Trades School at Mangalore. These schools provide regular courses of instruction in wood-work and engineering, the duration of each course being five years. A number of past students has been able to secure employment within the province.

In the Punjab, the number of such schools for boys has risen from 23 in 1928 to 34 in 1935 and the number of schools for girls from two to three. These schools provide instruction in two or more of the following crafts: wood-work, blacksmithy, lacquer-turning, weaving craft, weaving and sports gear making along with general education in Urdu, arithmetic, science, drawing and geometry. The schools were extremely popular, and 5024 pupils were in attendance in 1931. In that year, however, it was decided to close the primary classes in Government Industrial Schools. This decision was based on the view that it was premature to provide technical and industrial education to small children in the primary classes and that industrial education should be based on a reasonable measure of general education, which the ordinary schools were in a better position to impart. Accordingly, the minimum qualification for admission into industrial schools in important centres was raised to the sixth standard of general education and the schools are being re-organized with a view to impart specialized training in the manufacture of goods of daily consumption.

Except in the United Provinces, where six Government aided Industrial Schools for girls were established during the period under review, the changes in other provinces in the number of schools of the character under consideration do not call for special mention. A new aided institution in the United Provinces which can be classed as first class is the Technical College at Dayalbagh, Agra, which imparts training in engineering (mechanical, electrical and automobile) and leather-working. The re-organized college started work in 1929. The course extends over four years and there is room for 90 students. It received a grant of Rs. 28,640 in 1933-34 and a non-recurring grant of Rs. 12,000 was sanctioned in 1935-36 for the purchase of equipment. The table on the opposite page shows the position as regards technical educational institutions in 1935 as compared with that in 1928.

(v) APPRENTICESHIP AND OTHER FORMS OF TRAINING.

The training ship "Dufferin" was established at Bombay in December 1927 as an experimental measure for a period of three years in the first instance. The Government of India have since decided to make it a permanent institution. The object with which the institution was established was to train Indian boys for careers at sea as deck officers. Marine engineering classes were added about two years ago.

Specialized training in mycology, animal husbandry, dairying, farm organization and the cultivation and curing of tobacco is being imparted in the Imperial Institute of Agriculture at Pusa and its branches at Wellington, Karnal and Coimbatore. At these institutions, instruction is given for the Indian Dairy Diploma Course which extends over a period of two years during which intensive practical training is given on up-to-date methods of production, handling and distribution of milk and the manufacture of butter and cheese. The tobacco course started in 1933 lasts for two months and is attracting students from all over India.

The elaborate scheme for the training of apprentices in Ordnance Factories, which has been in force for a number of years, is now under revision and in its revised form will constitute an essential step towards the gradual Indianization of the Ordnance Factories in India. An Ordnance Technical School at Ishapur in Bengal is imparting technical training in carpentry, machining, fitting, engineering, sketching and designing to boys between the ages of 12 and 15. The course is of three years' duration. The average number of students passing out annually is 15 and about 74 per cent. of the passed candidates have found employment in Ordnance Factories. Sixty-three Indians have also been selected for training in mechanical, electrical and wireless and administrative posts in the Indian Air

In the Punjab, up till 1931, stipends were granted to all boys belonging to the artisan class in Government Industrial Schools and Institutions in order (a) to compensate their families at least partially for the loss of earnings due to the absence of the boy at school, and (b) to enable the artisan to complete his course of training. It was, however, felt in 1931 that scholarships and stipends were given on a very liberal scale and that the training which was extremely cheap to the students was costly to the general taxpayer. Apart from the consideration affecting the public resources, the Government were inclined to the view "that boys and their parents would appreciate more fully their technical education and will strive to obtain the utmost benefit from it if they were called upon to make some financial sacrifice in order to obtain it". The rules regarding the grant of stipends were accordingly made stricter. Under the present rules, the total number of stipends and scholarships does not exceed 25 per cent. of the number of students on the rolls. The average value of scholarships and stipends in an institution has also been fixed at Rs. 8 per mensem. This reduction in the number and value of the scholarships has not resulted in any appreciable hardship to the pupils except in the case of artisan classes in certain institutions, where the amount of the stipend is insufficient to support a boy in a large town.

In Burma, no special stipends for technical subjects are awarded to students in ordinary schools. Apprentice stipends of Rs. 15 per mensem (reduced to Rs. 10 from April 1934) are awarded to a certain number of boys who are deprived of Anglo-Vernacular or English education by the death, absence or physical infirmity of their parents. Only boys between the ages of 15 and 19 who are apprenticed or have been definitely promised apprenticeship in a workshop, mill, ship or other approved place are eligible.

Stipends in the shape of pay from Rs. 40 to Rs. 100 per mensem are granted by the Government of India to apprentices under training in the Ordnance Factories. A limited number of students admitted to the Sugar and Oil Sections of the Harecourt Butler Technological Institute on the nomination of the Imperial Council of Agricultural Research are exempted from the payment of tuition fees in return for the grants made by the Council to the Institute.

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and about 4,000 improved types of weaving appliances were sold to the weavers in Bengal at cost price. The number of improved appliances introduced by the Industries Department in the Central Provinces was about 17,700 sleys and 2,800 dobbies. In addition, some 14,000 sleys of this pattern have been made and sold by local carpenters. 200 improved weaving machines of the Madras pattern have been introduced since 1932. In 1929-30, the Department of Industries, Punjab, arranged for practical demonstrations of fly-shuttle looms fitted with jacquard machines at Ludhiana, as a result of which several weavers residing in that locality decided to set up jacquard machines of their own.

Practical instruction in the subsidiary processes of winding, warping and sizing and the allied arts of dyeing and printing, was also undertaken in many provinces. Special dyeing demonstration parties were at work in Madras and Bombay. In the Central Provinces, a special dyeing and printing demonstrator was appointed in 1928, who arranged to visit 123 out of 150 centres among which the 3,000 dyers of the province are scattered, with particularly satisfactory results. A new feature introduced by this demonstrator was aerograph printing and 500 children's bags so printed were sold during the Mysore Dusehra Exhibition of 1933.

The handloom industry is not confined to the class of hereditary weavers. It provides a subsidiary occupation to the agriculturist at the season when agricultural work is slack and thereby enables him to use time profitably, which would otherwise be wasted. Institutes for the encouragement of weaving are now established in all the major provinces. The number of such institutes has increased during the period under review. In Bombay, a Central Weaving Institute was established at Poona in 1930. It provides two courses, one an advanced course extending for a period of two years and the other an artisan course of one year's duration. In Bihar and Orissa, a half time weaving school was started at Bihar Sharif as an experimental measure in January 1926. Boys were admitted to it after completion of the lower primary school course. They are given training in hand-weaving, both theoretical and practical, side by side with general education for four years until they attain the middle school standard, when those who have shown aptitude in weaving are drafted to an advanced course in technical subjects, while those who are better with their brains than with their hands are asked to continue their general education in high schools.

The state of the handloom industry was examined by the Indian Tariff Board in 1932, in connection with their enquiry into the question of granting protection to the cotton textile industry. They came to the conclusion that the position of the handloom weaver had considerably deteriorated on account of the removal of the cotton excise duty and the imposition of a protective duty on yarn and

tion farm at Kuppam. There is also a peripatetic party which consists of one silk superintendent, five moth testers, one rearer and one silk reeling demonstrator. The party has been doing useful work in testing seed and giving advice to silk-worm rearers on various matters connected with silk-worm rearing and silk reeling.

In 1934, the Government of India decided with the approval of the Legislature, to spend a sum of Rs. 1 *lakh* a year for five years from 1st April 1935 to 31st March 1940 on the development of the silk industry in India. Local Governments were asked to submit schemes which were discussed at the Sixth Industries Conference held in Simla in July 1934. It was decided that the best means of spending the money for the present was on the development of the supply of disease-free seed. A portion of the grant was ear-marked for research work in this connection. An Imperial Sericultural Committee was formed to allocate grants.

At the first meeting of the Committee held at New Delhi in February 1935, the schemes submitted by the Local Governments were scrutinized. The Assam scheme provides for additional model seed rearing-houses and the opening of seed farms at three new centres, while the Bengal scheme involves the doubling of the supply of Government disease-free seed so as to meet the total provincial requirements. The Madras scheme provided for (a) increasing the seed production at Hosur, Palmaner and Thadguni farms, (b) a peripatetic rearing party, (c) aided grainages, and (d) aided silk farms. The Government of Bihar and Orissa proposed to start a sericultural centre at Ranchi. Funds were provided for all these schemes, as well as for certain schemes of research mentioned in Chapter VIII.

The Committee again met at New Delhi in October 1935 and allotted funds for 1936-37 to the above schemes on the basis of the progress already made. Additional schemes submitted by the Governments of Bihar and Orissa and Assam were considered and approved. The Bihar and Orissa scheme was to supply healthy seed eggs and approved species of *tasar* worm, while the Assam scheme was for the extension of the Shillong sericultural centre. All the approved schemes are now in operation. The following table shows the allotment made during 1935-37 to the provinces by the Government of India :—

	Rs.
Madras	24,778
Bengal	69,286
Bihar and Orissa	16,748
Assam	43,240
Burma	9,310
	<hr/> 1,63,362

ing and lacquering. The Pottery School at Insein had unfortunately to be closed down in 1931 as a result of stringency.

Practical demonstrations in cottage industries, other than cotton, silk and wool weaving, were also given in many provinces. In Bengal, an unemployment relief scheme was sanctioned in the year 1932-33. The object of the scheme was to give unemployed young men an opportunity of training in the new and improved processes of the more important cottage industries likely to afford occupation to a large number of workers. In accordance with this scheme, 24 demonstration parties were established, 4 parties (in addition to 4 parties for wool and jute weaving) for each of the following six industries, namely, soap making, umbrella making, brass and bell-metal ware, leather goods, cutlery and pottery. Work has been carried on in 12 districts and 665 young men have availed themselves of the opportunity of receiving instruction. Of these, 150 have started small factories of their own, giving employment to three or four workers in each and about 90 young men succeeded in securing employment. Over 200 students are still undergoing training.

In the Punjab, an exhibition train was run over the North Western Railway, which visited 83 stations within the province. Practical demonstrations in hosiery, basket making, dyeing and curing of hides and skins were given in it. A demonstration of arts and handicrafts suitable for women was arranged in 1929-30 at Lahore at which practical exhibitions were given of needle work, tailoring, fancy embroidery, machine embroidery, lace making, raffia basket making and clay modelling. In Delhi, periodical demonstrations have been arranged with a view to show the practicality and advisability of employing improved appliances and methods of manufacturing in various small industries, such as hosiery, knitting, dye making, soap making and the manufacture of boot and shoe laces.

Substantial assistance was rendered by the Indian Stores Department to cottage industries dealing with such materials as the Department is in a position to purchase. For example, the cutlery industry of Wazirabad and Sialkot received some stimulus from the orders placed by the Department and advice from its inspecting officers, whose duty it is to pass the work of such firms before any supplies are accepted. Valuable assistance has also been rendered to the small metal workers in the Aligarh area in respect of lock-making and brass founding. The cottage workers in that area have also been encouraged by orders for postal articles such as post boxes, scales and weights. Such orders have also paved the way for considerable business, as a result of the advertisement which the



mixtures of clay were discovered under the direct control of an expert who is training the potters.

In the Punjab, financial and technical assistance was given to manufacturers of tennis gut, sports goods, drawing materials, cutlery, pottery, *durries*, harmoniums, ivory work, combs, toilet goods, regimental swords, lances, sticks, etc.

In Bihar and Orissa, the Department of Industries was able to effect a marked improvement in the character and quality of the toys manufactured in the Cottage Industries Institute, Gulzarbagh. The Shelter Industrial School at Cuttack was given a grant-in-aid and was induced to start classes in basketry with remarkable success. Cheap picnic baskets made of palm leaf and work baskets of "kancha" grass are now being exported to England along with cane and raffia baskets.

In view of the importance of the leather tanning and leather working industries, which constitute the hereditary occupation of the *harijans* who number more than half a *lakh* in the Delhi Province, the Department of Industries undertook to develop these industries and as an initial step in this direction organized an industrial co-operative society among the workers. The results have been satisfactory. Losses have been substantially reduced by the substitution of modern methods of manufacture in places where the old crude system used to prevail. A marked improvement in the quality and variety of the products has resulted in an increased demand for them.

The crux of the problem of developing cottage industries in India is to find a suitable market for them. A great deal of organization is necessary, if the demand for such articles is to be stimulated and markets established in the face of the severe competition of cheap foreign products manufactured by machinery. The problem of proper marketing has received special attention and is dealt with in the following chapter.

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the cost of production. In accordance with this scheme the Central Provinces and Berar Co-operative Credit Society, with 79 members, began to function in February 1935 and its record in the matter of sales is promising.

The remaining provinces have adopted different systems. In the United Provinces, it was proposed to collect samples as soon as possible after the preliminary investigation into the handloom industry, to which reference has already been made, was finished. When samples were ready, commercial travellers would be appointed to take them round and find a market for them. As the work developed, a store would be started at the weaving centre concerned. A central marketing organization would also be brought into being at the same time to guide and help the work at different centres and supplement the activities of the commercial travellers.

The Punjab scheme includes a central marketing organization with branches in other weaving centres. The function of the Central Depot, which has been established at Amritsar, is to work out designs, to execute and distribute them locally or to outlying districts, and to arrange for marketing, printing and the introduction of improved looms. The local depots which are being established in other centres are to supervise the work of the weavers and give them assistance. A Marketing Officer was appointed under this scheme in 1935.

In Bihar and Orissa, a new organization on the lines of the Purdah Section of the Cottage Industries Institute, Gulzarbagh, has been established and the Purdah Section has been absorbed in it. A marketing organization has also been set up for handwoven fabrics with three departments, including a marketing section, and special technical assistants have been placed in charge of these.

In Burma, a Central Sale Depot was opened in Rangoon which has been carrying on work in the direction of securing and supplying orders for handloom weavers from Government Departments and business firms and making purchases of dyes and yarns for distribution to weavers.

#### (ii) OTHER MARKETING ACTIVITIES.

In the year 1933-34, the Government of Madras accepted the offer of the Council of the Victoria Technical Institute, which had for some time been attending to the disposal of the artistic goods manufactured by artisans and the products of cottage industries, to arrange for the sale of Madras industrial products in the European markets through an agent in London and sanctioned a grant of Rs. 3,000 per annum to the Institute, for the purpose, for a period of three years from 1934-35.

Rs. 50,000 only. It was therefore abolished in 1931. The most noteworthy effort of the Provincial Department of Industries for the improvement of the hand-weaving industry of the province was the establishment of a separate Purdah Manufacturing Section in 1929. Two agents were appointed—one in London and the other in New Zealand—for the sale of Bihar textiles in foreign countries. About a dozen selling agents were also appointed in important centres within India. The Purdah Manufacturing Section has also been of great educative value as it serves as a model trade organization for students of industrial institutes and for others who are interested in industrial development. The Purdah Section has recently been absorbed in the new marketing organization to which reference has already been made.

In the Central Provinces, the Emporium at the Central Museum, Nagpur, continued to stock, display and sell the products of the cottage and village industries, *viz.*, textile articles, gold and silver articles, brass and bell-metal articles, etc.

In Assam, the small Emporium at Gauhati, though rendering some assistance to cottage industrialists by advertising their finished products, did not purchase finished products except against advance orders. It has since been re-organized and improved.

In Bengal, there is no Government Emporium, but the Local Government assisted the Bengal Co-operative Silk Union, Limited, and certain other similar associations with loans and other facilities. The object of the Union is to organize societies of mulberry cultivators, cocoon rearers and reelers and silk weavers, to finance such societies and to provide them with facilities for marketing their finished products. A marketing investigator was appointed in 1933 and the Local Government hope that this appointment will be the nucleus of a regular marketing organization as soon as circumstances allow expansion.

Prior to 1934, for financial reasons, no extensive steps could be undertaken by the Government of Burma for the marketing of the artisans' products. The Saunders Weaving Institute, however, endeavoured to sell cloth woven by local weavers to Government Departments and private firms.

### (iii) EXHIBITIONS.

Exhibitions, organized and assisted by Government Departments, have also played an important part in the development of cottage industries. In Bihar and Orissa, a small exhibition of art textiles was organized in March 1930 at the Patna Museum. In the Punjab, exhibitions were arranged by the Department of Industries in 1929-30 and 1930-31, in which practical demonstrations

## CHAPTER V.

### Intelligence and Technical Assistance.

#### (i) INTELLIGENCE.

The bulk of the work of the dissemination of intelligence relating to industry and trade naturally fell on the Central Government whose Department of Commercial Intelligence and Statistics continued to answer trade enquiries, to collect and publish statistics and to assist Indian firms in establishing trade connections abroad. The Director-General is now stationed at the headquarters of the Government of India, while the office at Calcutta, where he was stationed formerly, is now in charge of a Deputy Director of Commercial Intelligence and a Deputy Director of Statistics. In 1930-31, as a result of the emphasis laid by the Royal Commission on Agriculture on the necessity for an improvement in certain directions of the statistical record, it was decided that the statistics collected under certain heads should be further elaborated and that there should be an analysis of existing statistics bearing on the economic position and tendencies in India. The collection and publication of statistics relating to the inland (rail and river-borne) trade of India had been discontinued in 1923 as a measure of retrenchment. In 1933, it was decided to collect and publish statistics of the inter-provincial movements of certain important articles by rail and river and by sea from the chief ports. The publication of a weekly table, showing the arrivals into and despatches from the main trade centres in India and Burma, in the Indian Trade Journal was also undertaken. The statistical branch of this office was strengthened in 1934 by the creation of a Statistical Research Branch under a Deputy Director of Statistical Research as it was felt that if any programme of economic advance for India was to be undertaken, it was essential to have a trained organization for the proper analysis and interpretation of the economic data collected.

In Great Britain, the Indian Trade Commissioner, assisted by a Deputy, has been giving valuable assistance to Indian firms desirous of finding markets in Great Britain or the Continent and also to European firms who either import or are desirous of importing Indian produce. His office is now located in the new India House in London. A scheme for the appointment of Indian Trade Commissioners in Europe, America, in the near East and Africa was sanctioned in March 1930 and Trade Commissioners were appointed at Hamburg in 1931 and at Milan in 1935. The former deals with commercial enquiries and other matters concerning Indian trade over an area including most of the countries of Northern, Central and Eastern Europe, while the latter deals with the countries of

now published as a monthly in an enlarged and expanded form. A "Monthly Survey of Business Conditions in India" was started by the Statistical Research Branch of the Commercial Intelligence and Statistics Department in two parts in December, 1933. The first part consists of statistical data, while the second deals with the various economic activities of the country and the economic conditions of the month. The Department also publishes "Monthly Statistics of Cotton Spinning and Weaving in Indian Mills" compiled from returns of cotton yarn and cotton goods manufactured, furnished in accordance with the requirements of the Cotton Industry (Statistics) Act XX, 1926.

#### (ii) SURVEYS.

Provincial Governments have undertaken surveys mostly of minor and cottage industries, but in several cases the recommendations based on such surveys could not be carried out on account of financial stringency. In the Punjab, as many as 33 surveys were held during the period under review. The list includes almost all the minor and cottage industries in the province. In Madras and Delhi, surveys were made of the ceramic industry. In Madras, the survey was undertaken to investigate the possibilities of instituting an experimental ceramic factory, while in Delhi the object of the survey was to see how far the industry could be introduced as a cottage craft in the province. In Bombay, the village tanning industry, the arts and crafts of the Presidency and the handloom weaving industry were surveyed and the results published in the form of reports. A large number of small industries, *e.g.*, manufacture of soap, matches, slates, biscuits, cigarettes, shoe laces, envelopes, were also investigated and estimates prepared of the cost of establishing factories.

In Bihar and Orissa, surveys were undertaken relating to the introduction and improvement of particular industries. These included investigations into (a) the suitability of raw materials available in the Rajmahal Hills for the manufacture of straw-boards, (b) the prospects of manufacturing electric insulators, (c) the hosiery industry, (d) possibilities of manufacturing fertilisers and manures from oil-cake, bone and fish refuse, and (e) the extension of the oil-crushing industry.

#### (iii) OTHER PUBLICATIONS.

The Central and the Provincial Governments have also published numerous reports, bulletins and miscellaneous publications. These deal with a variety of technical subjects of interest to the various industries, written by experts in each field. A complete list of such publications, issued up-to-date since 1921, is contained in the Biblio-

choosing suitable sites for the erection of machinery, and in selecting and erecting the machinery suited to particular industries. Several visits to particular factories for the solution of special practical difficulties brought to notice, have also been undertaken on payment of nominal fees. In Bihar and Orissa, a special staff consisting of an Industrial Engineer, three Circle Officers, two Mechanical Supervisors and a Draughtsman Supervisor was maintained from 1924 for giving technical assistance and engineering service to small industrialists as recommended by the Indian Industrial Commission. The post of Industrial Engineer had to be kept unfilled from 1930 and the two posts of Mechanical Supervisors had also to be retrenched in 1932 owing to financial stringency. Nevertheless, during the period under review, 44 installations were set up with the assistance of the special staff while the fees, which in each individual case were nominal, realised for the inspection services of the Department, amounted to Rs. 17,500.

The Indian Stores Department contributed substantially to the great advance made by the bridge building industry in India. Some years ago, a great deal of hesitation used to be felt in entrusting firms in India with orders of this kind except for comparatively unimportant work. This was due to the fact that in many cases their workshops were imperfectly equipped for dealing with major works, while their methods of manufacture were old fashioned and their standard of workmanship fell short of the requisite standard. As the result of advice and suggestions constantly given to firms by the inspecting officers of the Department, sufficient progress was made in 1927 to justify the challenging by the Chief Controller of Stores of all foreign indents for bridge spans up to 200 feet. Progress has been maintained with the result that the two largest bridges, of their kind in India, the Willingdon Bridge on the East Indian Railway and the Sagaing Bridge, Burma, have been constructed mainly with materials manufactured by Indian firms. This Department is also responsible for many improvements in the methods of manufacture of different kinds of hardware as a result of the advice and suggestions given by its inspecting officers from time to time. For example, the percentage of rejected pipes in a South Indian Manufactory fell from 45 to 8 as a result of the good offices of the Department.

The Indian Stores Department was also able to assist manufacturers in various other ways. For example, it was noticed that Indian manufacturers were unable to supply cloth of a particular colour known as "Turkey Red" as they found technical difficulties in the use of that dye. Experiments carried out with various dyes in use in India revealed the fact that "Naphthol Red A. S. T. R." produced exactly the same results as "Turkey Red". This dye was then used

## CHAPTER VI.

## Financial Assistance.

## (i) LEGISLATIVE MEASURES.

Acts authorizing and regulating the grant of financial assistance to industries have been in force in Madras, the Punjab and Bihar and Orissa since 1923. Similar Acts passed in Bengal and the Central Provinces became law in 1931 and 1933, respectively. These Acts were modelled on the lines of the Bihar and Orissa Act which in its turn followed fairly closely the original form of the Madras Act. The Central Provinces Act, like the Madras Act, lays down that Government should not grant aid to any industrial business or enterprise except in accordance with the provisions laid down in it, while the Bengal Act follows the Punjab Act in not containing any such restriction. In Assam, a State Aid to Industries Bill, modelled closely on the Bengal Act, was introduced in the Legislative Council in May 1935. It has not yet become law. The Punjab Industrial Loans Act of 1923 has been superseded by a new State Aid to Industries Act passed in 1935. The new Act, like the old, does not contain any provision restricting the powers of the Local Government to grant aid otherwise than under its provisions. In addition to the classes of industry referred to in other Acts, it permits aid to be given to industries which need revival or development by modern methods. It authorizes the Director of Industries to take action in the event of certain contingencies affecting the security of the loan. There is provision for an appeal to the Local Government against such action by the Director of Industries.

In Madras, the Act as originally passed in 1923 was found to be unduly rigid in its application to small enterprises and cottage industries, and in 1928, the Act and Rules were amended to secure greater elasticity in this respect. Under the present rules, the maintenance of detailed and audited accounts of these industries is not obligatory and the provisions regarding security for cash credits, overdrafts or fixed advances have also been made easier. In 1930, the Act was again amended so as to authorize the grant of loans to individual concerns up to the limit of Rs. 40,000, even if that sum exceeds 50 per cent. of its net assets. The rule requiring compulsory insurance against loss or damage by fire was also relaxed in the case of businesses whose capital outlay did not exceed Rs. 500, and concessions were made in respect of stamps and fees for the benefit of smaller enterprises.

## (ii) LOANS AND GRANTS.

Up to the close of 1934, loans aggregating to Rs. 8,27,000 were disbursed to 14 concerns under the Madras Act. Of these, the

the collateral security. The silk reeling concern has also proved a failure and the plant had to be bought in auction by the Government and the balance due written off. The small loan to the toy manufactory and a loan of Rs. 8,000 to a metal enterprise were also recently made and it is too early to judge their results.

There is thus no indication that industrial development in the province has been stimulated to any appreciable extent by the grant of State aid, either under the Act as it stood before amendment or after the introduction of the new concessions by amending Acts. The principal difficulty in the way is said to be the restrictive character of section 5 of the Act, under which aid can be given only to industries which either have an important bearing on the economic development of the country and should be (a) new or nascent industries or (b) industries to be newly introduced into areas where such industries are undeveloped or (c) cottage industries. Although there was plenty of scope for aiding the formation of co-operative societies all over the province for the manufacture of finished products from local raw material, only one such co-operative society could actually be granted aid because the industries contemplated in other cases could not be classed either as "new" or "nascent" or were not being newly introduced in areas where such industries were undeveloped. The development of new sugar factories for which there is scope in the province was not possible under this Act, because financial assistance to enterprises which have no assets at the time of their inception is not permissible under the law as it stood.

A scheme for the supply of textile appliances to capitalists on the hire-purchase system was sanctioned in 1932. But the results were disappointing as only one jacquard machine and a hand-driven sizing machine could be disposed of. Improved silk reeling machines, costing Rs. 50 each, were offered for 10 monthly payments of Rs. 5 each without any response from the public. A system of hire-purchase is also in vogue in connection with the Pykara Hydro-Electric Scheme under which industrialists in the Coimbatore District possessing power plant not driven by electricity could change over to electricity. The system was subsequently extended to new ventures and there has consequently been a rapid expansion in electrically driven mills in the Coimbatore District.

In the Punjab, loans aggregating to about Rs. 6,46,000 were made during the period under review in 190 cases. About one-third of the total amount has so far been recovered by way of principal and about Rs. 76,000 by way of interest. No large loans have been given and nearly all the loans have been for Rs. 5,000 or less. The Punjab Banking Enquiry Committee of 1929-30 in reviewing the



Council, have accepted the recommendation of the Fifth Industries Conference that Provincial Governments might advance loans in aid of small industries up to a maximum of Rs. 10,000 in each case.

In the United Provinces, no loans were given comparable to the larger, and generally unsuccessful loans given between 1922 and 1927. A sum of about Rs. 1½ lakhs has been advanced since 1928. This has been given to manufacturers of china, glass, brass-ware, matches, jams and disinfectants, for tanning and to co-operative societies working in glass, blankets and other cottage industries. Grants, which are not re-payable, amounting to Rs. 1,60,000 have been distributed to new industrial ventures involving risk or necessitating experiments in their earlier stages, e.g., manufacture of hosiery by power, composition pots, tops for corks, fountain pens, electric fans, fancy borders and laces, pencils and shoe laces.

These loans and grants were given under the system introduced in 1922-23. Under this system a sum of Rs. 20,000 a year was placed at the disposal of a Board of Industries consisting of various commercial and banking interests and a number of officials and members of the Legislative Council, for the purpose of giving grants for any genuine industrial purpose, except technical or industrial education, but primarily to pioneer industries and usually on a half and half basis for the purchase of machinery only. Only a few small industries could be encouraged in this way and the system was not suitable for the development of bigger pioneer industries. The grant of loans to such industries was, therefore, entrusted to a Board of Loan Commissioners consisting of 6 officials and 7 non-officials. Applications received were examined by the Director of Industries, who was Secretary to the Board, and placed before the Board which made recommendations to Government. The system was not a success, because the Board, which was a large and heterogeneous body, could not examine applications for loans thoroughly. The result was that the Board either recommended no loans or had to back up speculative ventures. The Board of Industries was re-constituted in July 1934. The personnel of the Industrial Loan Commissioners underwent some changes and its term has been extended.

An Industries Re-organization Committee, under the Chairmanship of the Minister for Education and Industries, United Provinces, was appointed in 1932 to consider and suggest the lines along which the work of the Industries Department should be re-organized. The Committee recommended that the future policy of the Department should be to concentrate on

- (a) the intensive development of a few selected industries such as sugar, oil and glass,

into a contract with the Tata Iron and Steel Company, Limited, subject to certain conditions, to purchase rails below 115 lb. section from them at the rate of Rs. 110 per ton for a period of 7 years from April 1927. In September 1930, the Tata Iron and Steel Company, Limited, represented to the Government of India that the orders for steel rails placed with them fell considerably short of the estimate upon which the protection to the iron and steel industry under the Steel Industry (Protection) Act of 1927 was based. The Government of India accordingly, agreed, subject to certain conditions, to an extra payment of Rs. 20 per ton on rails ordered from the firm in question in 1930-31. They also agreed to an additional payment of Rs. 10 per ton in respect of the heavier 115 lb. section rails ordered during the year 1930-31 for which the original rate was Rs. 120 bringing the total price in each case to Rs. 130 per ton. These rates were also paid in 1931-32.

(iii) REVIEW BY INDUSTRIES CONFERENCE.

The question of State Aid to Industries was discussed at the Fifth Industries Conference held at Simla in July 1933. The Conference came to the following conclusions :—

- (1) Experience showed that, except in some Indian States, larger loans had nearly always been unsuccessful. Smaller loans had been successful in probably the majority of the cases. The Conference did not wish to express any opinion against the grant of large loans. This matter should be left over for decision as occasions arose, but in the case of large loans a more strict inquiry into the prospects of the concern and the nature of the security offered was essential, as also a closer scrutiny of the working of the concern.
- (2) The loan procedure should be as expeditious as possible and there should be less rigidity in its working.
- (3) The loans should be advanced for a reasonably long time.
- (4) The hire-purchase system is useful, but collateral security is essential on account of rapid depreciation.

Director of Industries. The lease was terminated in the following year, as the lessees defaulted in the payment of their dues to Government. A Government Demonstration Weaving Factory was started at Shahdara in October 1928. The number of looms in the factory is now 110. After losses in the initial years, it has shown a profit since 1931. Three training classes for apprentices are attached to the institution. The first class is meant for graduates, the second for matriculates and holders of certificates of weaving institutions and the third for handloom weavers. The apprentices are limited to 47 and the majority of the students passing out of the Factory have secured employment in mills and factories.

In Bengal, a ten ton open pan system sugar factory was established at Rajshahi in 1934 but it has been handicapped in its working by competition for sugarcane. The demonstration tannery attached to the Bengal Tanning Institute has continued to give assistance to small local tanners by giving machine "finish" to their products. Receipts from the sale of the products of the Institute average Rs. 18,000 per year. The workshop attached to the Ashanulla School of Engineering, Dacca, is also useful for demonstration purposes in various subjects, e.g., electro, copper and nickel plating, manufacture of cutlery, boat building, boring tube-wells, manufacture and repairs of lift pumps. In Burma, the Government Saw Mill at the Timber Depot, Alhone, had to be closed down on account of financial stringency.

### (iii) OTHER STATE FACTORIES.

Among the factories which the State maintains to meet its own needs may be mentioned the seven Ordnance Factories and the Clothing Factory, the Security Printing Press owned by the Government of India at Nasik, the Government Printing Presses maintained by the Central and the Local Governments, the Telegraph Workshops at Alipore, the numerous Railway Workshops maintained by the different State Railways in India and Government Dockyards for the construction of and repairs to Government vessels.

In addition to these, Local Governments also maintain factories attached to important Central Jails where a variety of marketable articles are produced by convict labour. For example, the Dacca Central Jail in Bengal is equipped with machinery for the manufacture of heavy woollen goods such as blankets. The factory commenced working in 1914 and was extended in 1928. It now has two sets of condensers and 576 spindles which supply 16 looms with different kinds of yarn. It consumes 2,000 to 2,400 maunds of wool per year, all of which is grown in India, chiefly in the northern provinces. In the Bengal Presidency Jail, a leather factory has

## CHAPTER VIII. Research and Investigation.

### (i) CENTRAL RESEARCH ORGANIZATION.

In accordance with a recommendation of the Indian Industrial Commission, a Chemical Services Committee was appointed in 1919 to formulate proposals for the organization of a chemical service and the location and equipment of research laboratories. The Committee recommended the formation of Provincial Research Institutions with the establishment of a chain of Imperial Chemical Service and a Central Research Institute at Dehra Dun "to assist in the co-ordination of the work in progress in the provinces both by means of personal discussion between the officers of the Central and Provincial Institutes and by means of periodical Conferences of Provincial and Imperial officers". On account of the general opposition which the scheme for an Imperial Chemical Service evoked, it had to be dropped. The proposal for the establishment of Research Institutes which was closely linked to the scheme also necessarily fell through and the land acquired at Dehra Dun for a Central Institute had to be given up for other purposes.

As a result of the Imperial Conference in 1926, Local Governments were asked in 1928 to give their views on the question of the establishment of central agencies and institutions for industrial research. The views received expressed unanimity on the desirability of some co-ordination of research work in India and there was also a suggestion for the establishment of an Imperial Council of Industrial and Scientific Research on the lines of the Imperial Council of Agricultural Research. But the question was not further pursued at the time on account of financial stringency.

At the Fifth Industries Conference held at Simla in July 1933 it was agreed unanimously that some central co-ordinating authority should be set up for the co-ordination of research and in May 1934, the Government of India decided to establish an Advisory Council and a Central Bureau for Industrial Intelligence and Research. The Bureau, now called the Industrial Research Bureau, was established in April 1935 with a research branch at Alipore. The Bureau is attached to the Indian Stores Department and has been given a grant of Rs. 5 lakhs spread over a period of three years.

The Advisory Council, now designated the Industrial Research Council, is composed of representatives of the Central and Provincial Governments, with some non-official members, and held its first session in July, 1935. It has appointed a committee to examine the research work now being done in fatty oils, soaps and essential oils.

monopoly of Russia in santonin and of China in ephedrin has been broken and the prices of the drugs have been considerably lowered.

The Metallurgical Inspectorate at Tatanagar carried out several investigations at the special request of particular industries. An investigation lasting  $3\frac{1}{2}$  years was undertaken to ascertain the effect of temperature and weathering on the life and properties of cables and the results have been of considerable value to the manufacturer. Other work includes experiments on the effect of loads on fishplates of various designs and on welds for fractured component parts of aeroplane engines. Numerous tests of various materials like oils, mineral oils, and vegetable, painting materials, chemicals, coal, cement, etc., which have been of value to the industries concerned have been carried out by the Indian Stores Department in the Government Test House at Alipore, Calcutta.

The Geological Survey completed a re-survey of the coalfields in India. Investigations were also carried out by that Department into the iron-ore resources of Bihar and Orissa, the asbestos and barytes deposits of Madras and upon the aluminous refractory materials of India. A memoir is in the course of preparation upon the copper deposits of Singhbhum. In Burma, systematic geological mapping has been continued in the tertiary tracts, especially in the Upper and Lower Chindwin and the Shwebo Districts. A large scale geological survey of the Mogok Stone Tract has been completed. Systematic geological surveys are also in progress in the Northern and Southern Shan States and in the Jade Mines region in the Myitkyina District.

Certain items of research relating to the sericultural industry have been conducted under the auspices of the Imperial Sericultural Committee, which was set up in 1934. The following schemes put forward by the Governments of Madras, Bengal and Mysore, respectively, were approved :—

- (a) Research into certain factors related to Pebrine disease.
- (b) Determination of the comparative efficiency of disinfectants used for the prevention of disease.
- (c) The effect of refrigeration in connection with the supply of disease-free layings.

In 1928, the Royal Commission on Agriculture recommended the formation of a Central Jute Committee to watch over the interests of all branches of the trade from the field to the factory. This recommendation was accepted by the Government of India in principle but could not be given effect to on account of financial stringency till May 1936, when the constitution of the Committee was announced. Its functions will be to undertake agricultural, technological and economic research, the improvement of crop

ascertained, for instance, that a considerable percentage of cow hides is highly suitable for chrome tanning and that hides not good enough for this purpose could be turned into half-tanned kips by vegetable tanning for export. Suitable chemical solutions for the proper preservation of hides and lizard skins have been discovered. Investigations have led to a definite improvement in the quality of Indian Box-sides (shoe upper leather), thereby assisting their export. Useful work has also been done in other branches of the leather trade, e.g., the manufacture of shoe creams and polishes, pigment finishes and chrome tanning extracts in solid form. Experiments in connection with dyeing, spinning and weaving of sisal hemp and of bleaching and otherwise chemically treating jute fibre have been carried out at the Government Weaving Institute at Serampur.

At the Industrial Research Laboratory, maintained by the Bengal Department of Industries, research work was undertaken and finished in 21 cases during the period 1928-34. Of these, nine related to improved methods of soap manufacture and six to the industrial utilization of the less known vegetable oils specially in the soap industry. The others were concerned with the improvement of the country process of making sugar from *gur*, the refining of *ghee* and coconut oil, the silvering of glass globes, the bleaching of hosiery and the recovery of tannin from coconut husk. A chemical constant has been discovered with the help of which the hardness of the body of a charge of soap can be fixed or varied with greater accuracy than by any other method known to soap manufacturers.

Several minor investigations designed to assist the smaller industries were undertaken in this province. Experiments in the brass and bell-metal industry made with a view to provide less complicated building and sanitary fittings have proved successful. Among inventions to the credit of the Industries Department may be mentioned a new blowing arrangement giving rise to higher temperatures in furnaces for the melting of alloys, a machine for rolling out slate pencils, an improved type of potter's wheel and an improved kiln for glazed pottery. Efforts were also made to find suitable wood in Bengal for the manufacture of the bobbins used in jute and cotton mills.

In Burma, research work was carried on at the Agricultural College and Research Institute, Mandalay, opened in 1924, the Saunders Weaving Institute at Amarapura and the Lacquer School at Pagan. At the last named institution a process has been invented for the adulteration of lac with chemicals so as to produce a variety of pleasing tones of colour.

Reference has been made in a previous chapter to the research work done in the Kerala Soap Institute, Calicut, on oils, soap

## CHAPTER IX.

## Development and Restriction.

## (i) CESSES FOR THE DEVELOPMENT OF PARTICULAR INDUSTRIES.

In certain industries, Acts are in existence with the object of securing funds for research or for assisting the industry in other ways. The Indian Cotton Cess Act and the Indian Lac Cess Act were placed on the Statute Book before the period under review. A Bill designed to replace the Indian Lac Cess Act, 1921, and which included a new provision for the establishment of a statutory committee on the lines of the Indian Central Cotton Committee to control the proceeds of the lac cess levied was introduced in the Legislative Assembly during the Spring Session of 1930. The Bill, as amended by the Select Committee, was passed by the Legislature and brought into force on the 25th July 1930. An amending Act was passed on the 26th April 1936. The rate of cess has been increased from annas four to annas seven per maund in the case of lac and from annas two to annas five per maund in the case of refuse lac. The constitution of the Indian Lac Cess Committee has also been altered and provision has been made for expenditure from the lac cess fund for the purpose of securing patents for the protection of inventions by the employees of the Indian Lac Cess Committee.

The Indian Soft Coke Cess Act was passed in 1929 and was originally to remain in force until the 31st December 1934; its operation was extended for a further period of 5 years in 1934. It provides for the levy of a cess of two annas per ton on all soft coke sent by rail from collieries in Bengal and Bihar and Orissa. The object of the tax is to create a fund to finance measures for promoting the sale and improving the methods of manufacture of soft coke. A Committee to administer the funds was constituted in 1929 and experiments are being financed; the work is carried on with the help of a passed student of the Indian School of Mines, Dhanbad. The efforts made have met with a large measure of success. The despatches of soft coke, in spite of the serious intervening depression, rose from 754,115 tons in 1929, when the Act was passed, to 860,478 tons in 1934.

The Indian Finance Bill of 1927 contained a provision for the abolition of the export duty of 5 per cent. *ad valorem* on raw hides: this was rejected by the casting vote of the President. In the endeavour to secure a settlement thereafter explored, with the aid of a special committee known as the Hides Cess Enquiry Committee, the possibility of converting part or the whole of the export duty into a cess to be applied for the benefit of the industry. The

was adopted by all the countries concerned including India where the Indian Tea Control Act was passed by the Legislature in September 1933. The scheme was accepted in the hope that it would help to secure an early return to normal conditions ; and the original quotas were fixed at 85 per cent. of the standard exports laid down for each participating country. In the following year, the figure was raised to 87½ per cent. But thereafter, it was found necessary to revert to 82½ per cent. in 1935-36, which is also the figure for 1936-37.

A somewhat similar scheme was also adopted in the case of the rubber industry which was faced by a crisis due to over-production. The scheme, which received general support in India and Burma, was approved by the principal rubber producing countries, namely, the Dutch East Indies, French Indo-China, Sarawak and Siam. It is to remain in force until 31st December 1938 when its continuance will be considered by the Governments concerned. The Government of India gave effect to the scheme from the 1st January 1934 by issuing the necessary notifications under the Sea Customs Act, 1878, and certain executive instructions. These were *interim* measures and an Indian Rubber Control Act was passed in 1934 ; owing to technical difficulties the Act has not yet been put in force, but it is proposed to bring it into operation, after necessary amendments, with effect from the 1st January 1937.

The question of compulsorily restricting the output of coal in India by legislation came up before the Government of India in 1933. The opinions on the scheme received from Local Governments, Indian coal consuming interests and even the coal industry itself did not disclose any unanimity. The figures of output suggested that there was little, if any, over-production ; but there was evidence that the low price of coal was encouraging resort to wasteful methods of mining. It was decided that the best method of attacking the problem was not by compulsory restriction which would restrict the activities of efficient and inefficient mines alike. Instead, the Government of India proposed to proceed with a scheme for conservation designed to prevent the waste of the country's coal assets by controlling the methods of coal production. Some assistance to the industry was, however, granted by

(a) altering the basic percentage of the surcharge on railway freights for coal from 15 per cent. to 12½ per cent. ; and

(b) subjecting it to a maximum of Re. 1 per ton irrespective of distance with effect from the 1st April 1935.

The jute industry in Bengal was also confronted with difficulties. Here, for a number of years, voluntary agreements within the Indian



freights and Port Commissioners' charges. The East Indian and Bengal Nagpur Railways grant rebates of 37½ per cent. of the freight, excluding all terminals and extra charges, on coal exported from the Port of Calcutta to any port in or outside India under a shipment certificate granted by the Coal Grading Board. The Port Commissioners of Calcutta also grant a rebate of 50 per cent. of the river dues, i.e., four annas per ton on such coal. The Board's certificates, although originally intended to assist exports of coal, have also been of service in internal transactions in coal.

In 1926, a Railway Rates Advisory Committee was appointed by Government to investigate and make recommendations to Government on the following subjects :—

- (1) Complaints of undue preference.
- (2) Complaints that rates are unreasonable in themselves.
- (3) Complaints or disputes in respect of terminals.
- (4) The unreasonableness or otherwise of any conditions as to the packing of articles specially liable to damage in transit or liable to cause damage to other mechanism.
- (5) Complaints in respect of conditions as to packing attached to a rate.
- (6) Complaints that Railways do not fulfil their obligations to provide reasonable facilities for receiving and forwarding goods traffic without unreasonable delay and without partiality.

The Committee investigated about 25 such cases during the years 1926-27 to 1934-35 and made recommendations to Government which have been accepted in all cases except one.

The mica mining industry in Bihar was handicapped by systematic thefts on an extensive scale. In 1921-26, the export of mica from India was practically double the recorded output of the mines. To meet this difficulty, a Bill was introduced in 1927 which provided for a system of licensing of all persons engaged in the industry, for the maintenance of accounts of dealings in mica and for the regulation of the storage and transport of mica. A motion to refer the Bill to a Select Committee was rejected by the Bihar and Orissa Legislative Council without discussion in February 1928.

The abuses in the mica industry continued to be grave and in 1929 the Government of Bihar and Orissa redrafted the previous Bill of 1927 in the light of criticisms that had been levelled against it. The original Bill would have prevented the issue of mica to workers for splitting in their homes, an industry which gave employment

## CHAPTER X.

## Protection.

After the introduction of the Reforms in 1920, there was a radical change in the fiscal policy of the Government of India. Until then, duties had been regulated principally according to revenue needs. The recommendation of the Indian Fiscal Commission, appointed in 1921 to consider the future tariff policy of India, was accepted by the Legislature in 1923 and a policy of protection, to be applied with discrimination along lines indicated by the Commission was inaugurated. A Tariff Board was constituted, and continued from time to time, to enquire in accordance with terms of reference formulated by Government on each occasion, into the conditions in industries presenting a *prima facie* case for protection and to make recommendations.

Thus, the Central Government, though curtailed of most of their powers of giving direct financial assistance to industrial development under the new constitution, found themselves in a position to aid the growth of Indian industries on a scale beyond the capacity of any Local Government.

## (i) IRON AND STEEL.

The Fiscal Commission had recommended that the first industry to receive the attention of the new Tariff Board should be the iron and steel industry in India. The results of various enquiries by the Tariff Board and Acts passed between the years 1924-27 may be summarized as follows. Substantial duties were imposed on imported iron and steel manufactures of various kinds. Bounties amounting in all to about Rs. 242 *laks* were given for the benefit of the industry.

In 1926-27, the Tariff Board, after a further enquiry recommended that protection should be continued but not on the scale in force hitherto and that the further grant of bounties should be stopped. The Steel Industry (Protection) Act of 1927 was accordingly passed, giving effect to these recommendations. The Act was to be in force till March 1934, and before its expiry there was to be an enquiry as to the continuance of protection beyond that date. The grant of protection to steel wires and nails was withdrawn.

In 1930-31, the Tariff Board considered the anomaly arising out of the fact that the duties on the raw materials required by the iron and steel industry for the manufacture of certain articles were higher than those on the finished products and recommended that a specific duty of Rs. 2-4-0 per cwt. should be imposed on fishbolts

effective and that in spite of the great falling off in the demand for steel products, the industry had made substantial progress, maintaining its output and greatly reducing its cost of production. The Board considered that the Ottawa Trade Agreement had been successful and beneficial as regards pig iron and suggested that the continued free entry of this product into the United Kingdom should be secured in return for a preferential protective duty on British galvanized sheets imported into India. The Iron and Steel Duties Act, 1934 gave effect to these recommendations. It also imposed as a revenue measure an excise duty on the production of steel ingots in British India and a countervailing customs duty equivalent to the excise duty on steel ingots and certain articles manufactured therefrom imported into India from foreign countries. These duties with slight modifications have been incorporated in the Indian Tariff Act of 1934 and will remain in force till the 31st March, 1941.

It can be claimed with some confidence that the policy of protection for the steel industry has gone far to secure the desired results. At the time when protection started, the industry was in such a position that it could not have survived on any scale without assistance. Behind the protective tariff, it has greatly increased its production and has so reduced its costs as to warrant the hope that further assistance need not be of long duration. The output of steel at Jamshedpur which was about 163,000 tons in 1923-24, increased to about 630,000 tons in 1934-35, while the following figures for important items of manufacture show the general trend of the duties :—

*Duty in Rs. per ton.*

—	1924.	1927.		1931.	1932.		1934.	
<i>Not fabricated.</i>		British	Non-British		British	Non-British	British	Non-British
Galvanized sheets	45	30	30	67	30 (a) 53 (b)	83	15½ (c)	45½
Tin plate	60	48	48	48	60	60	44	65
Steel bars	40	26	37	No change	32½	46½	15½ (c)	44½ (d)
Black sheets	30	35	59	Do.	43½	73½	16½ (r)	37½

(a) if made from Indian sheet-bar.

(b) if made from sheet-bar other than Indian sheet-bar.

(c) or 10 per cent. *ad valorem* whichever is higher.

(d) or 20 per cent *ad valorem* whichever is higher.

tectorates. A 10 per cent. preference was extended to yarns and textile fabrics made of cotton, silk or artificial silk. In the same year, the Indian cotton textile industry was severely affected by Japanese competition, which was aided by the depreciation of the Japanese currency. Following another enquiry by the Tariff Board, the duty on all piecegoods not of British manufacture was raised to 50 per cent. *ad valorem*, the minimum specific duty on plain grey goods being enhanced to 5½ annas a pound. In June 1933, these duties were further raised to 75 per cent. *ad valorem* and 6½ annas a pound, respectively.

Meanwhile, the Tariff Board had been conducting an enquiry in order to determine how far the Indian cotton textile industry needed substantive protection. Its report was made available in November, 1932. In order to cover the period till final orders of Government could be passed on the Tariff Board's recommendations, the duties imposed in 1930 were temporarily extended first till the 31st October, 1933, and again up to the 30th April, 1934.

In the interval, an agreement had been reached between the representatives of the Bombay Millowners' Association and the British cotton textile industry. The necessity for reasonable protection to the Indian industry and preference to British goods imported into India, as against goods of foreign origin, was admitted by the British and Indian sides, respectively. Agreement was reached on the rates of duty to be levied on British yarn and artificial silk goods imported into India and the British side promised to take all steps to stimulate imports into the United Kingdom of Indian raw cotton, with the result that the quantity of raw cotton exported from India to the United Kingdom increased from about 30,000 tons in 1932-33 to about 62,000 tons in 1934-35. Government accepted the scale of duties which had been agreed upon by an important and representative section of the industry in India and with a slight modification of the agreement in respect of yarn of counts above 40s, gave effect to it under the Indian Tariff (Textile Protection) Act, 1934. During the debate on the Bill, the then Commerce Member stated that the duties on goods imported from the United Kingdom would come under review before the expiry of the agreement.

The textile industry, however, continued to be severely affected by the import of Japanese cotton piecegoods which had increased from about 217 millions of yards in 1925-26 to 580 millions of yards in 1932-33. In the face of the Anglo-Japanese Convention of 1904, the Government of India were not in a position to impose safeguarding duties on Japanese goods. Accordingly formal notice of denunciation of the Convention was given to Japan in April 1933 followed by an invitation to the Japanese Government to enter on

The following table indicates that during the period of protection the cotton mill production in India has greatly increased at the expense of imports from abroad. The handloom industry has not secured a corresponding benefit, but it is satisfactory to note that the total consumption of handloom products per head of population has increased from 3.41 yards in 1925-26 to 3.95 yards in 1934-35.

COTTON PIECEGOODS.  
(In crores of yards.)

Year.				*Total imports.	Mill production in India.	Handloom production in India.
1925-26	..	..	..	154	195	116
1926-27	..	..	..	177	226	133
1927-28	..	..	..	193	236	131
1928-29	..	..	..	190	189	108
1929-30	..	..	..	183	242	140
1930-31	..	..	..	88	256	139
1931-32	..	..	..	75	299	150
1932-33	..	..	..	119	317	170
1933-34	..	..	..	76	294	144
1934-35	..	..	..	94	340	146

\*The figures include re-exports but exclude fents.

As regards other textiles, protective duties on raw silk and manufactured artificial silk and mixed fabrics were imposed by the Indian Tariff (Textile Protection) Amendment Act, 1934, which will expire at the same time as the protective duties on cotton goods. These duties were imposed after an enquiry by the Tariff Board into the requirements of the sericultural industry in India. The main features of the scheme are the prescription of a specific duty on a weight basis, as an alternative to the 50 per cent. *ad valorem* rate, in the case of silk fabrics and on a square yard basis on fabrics of artificial silk and mixtures as an alternative to the *ad valorem* rate of 30 per cent. in the case of British manufactures and 50 per cent. in the case of non-British manufactures. As has been mentioned in a previous chapter, the Government of India, with the approval of the Legislative Assembly, sanctioned a grant of a lakh of rupees a year for five years to assist the sericultural industry.

## CHAPTER XI.

## Protection—contd.

## (i) SUGAR.

In 1930, the question of granting protection to the sugar industry in India was referred to the Tariff Board. Its report was received in February, 1931, and the examination of its recommendations took some time. Meanwhile, as a revenue measure, the duty on all grades of sugar was raised by Rs. 1-4-0 per cwt. by the Indian Finance Act of 1931. In the same year, a surcharge of 25 per cent. on the existing rates of duty was imposed with effect from the 30th September, 1931, by the Finance (Supplementary and Extending) Act, 1931. The rates of duty on sugar as they stood in May 1930, on the 29th September, 1931, and after the passing of the Finance (Supplementary and Extending) Act were as follows :—

Article.	Rates of duty in May 1930.	Rates of duty on the 29th September 1931.	Rates of duty as they stand under the Finance (Supplementary and Extending) Act.
Sugar, 23 D. S. and above.	Rs. 6 per cwt. ..	Rs. 7-4-0 per cwt.	} Rs. 9-1-0 per cwt.
Sugar, 22 D. S. to 8 D.S.	Rs. 5-8-0 per cwt.	Rs. 6-12-0 per cwt.	
Sugar, below 8 D. S. ..	25 per cent. <i>ad valorem</i> plus Rs. 1-8-0 per cwt.	25 per cent. <i>ad valorem</i> plus Rs. 2-12-0 per cwt.	} 31½ per cent. <i>ad valorem</i> plus Rs. 3-7-0 per cwt.
Sugar Candy ..	25 per cent. <i>ad valorem</i> plus Rs. 1-8-0 per cwt.	25 per cent. <i>ad valorem</i> plus Rs. 2-12-0 per cwt.	

In February, 1932, a Bill incorporating the decisions of Government on the Tariff Board's recommendations was introduced in the Legislative Assembly. During the Select Committee stage, the Bill was amended so as to provide for a declaration in the preamble that the sugar industry would be protected up to the 31st March 1946.

policy of fostering the sugarcane industry are indicated by the figures given below :—

Year.	Area under cane.  (Acres). 000	Area under improved varieties of cane.  (Acres). 000	Production of sugar direct from cane.  (Tons). 000	Number of fac- tories employ- ed in produc- tion of sugar direct from cane.
1926-27 .. ..	30,75	2,08	63	25
1927-28 .. ..	31,05	2,69	68	26
1928-29 .. ..	26,50	3,01	68	24
1929-30 .. ..	26,77	5,49	90	27
1930-31 .. ..	29,02	8,17	1,20	29
1931-32 .. ..	30,76	11,70	1,59	32
1932-33 .. ..	34,35	18,46	2,90	57
1933-34 .. ..	34,19	22,05	4,54	112
1934-35 .. ..	34,71	24,46	5,78	130

As a result of the imposition of a protective duty and the adoption of other measures for fostering the development of the sugar industry in India, the revenues from the import duty on sugar which in 1930-31 amounted to over Rs. 10 *crores*, had dwindled by 1934-35 to a little over Rs. 2 *crores*. The estimates of sugar production by new factories made by the Sugar Technologist showed the possibility of still further loss of revenue under this head. In order to recoup the loss partially, the Sugar (Excise Duty) Act was passed in 1934 and excise duties at the following rates were imposed on sugar produced in any factory in British India :

- (a) Khandsari sugar .. .. Ten annas per cwt.
- (b) All other sugar except palmyra sugar .. One rupee and five annas per cwt.
- (c) Palmyra sugar .. At such rate, if any, as may be fixed by the Governor General in Council after such enquiry as he may think fit.

in the shape of a protective duty of Rs. 140 per ton for 5 years on printing and writing paper in order that the possibility of manufacturing paper from bamboo may be fully explored. It also recommended financial assistance to firms properly equipped to carry out the work which had to be done. Government accepted the tariff proposal; but not that relating to the grant of direct financial assistance. In lieu of the latter, the protective period was extended from five to seven years. The second report of the Tariff Board was presented in 1931. The Board found that the industry had not developed as rapidly as was anticipated in the first report but thought that "firm and solid foundations had been laid for the industry". The continuance of the protective duty was, therefore, recommended for a period of seven years. The grant of protection to the wood pulp industry was also a necessary concomitant of the protective scheme in respect of the paper industry. Accordingly, the Bamboo Paper Industry (Protection) Act was passed in 1932 imposing a duty of Rs. 45 per ton on wood pulp. With the surcharge the duty works out to Rs. 56-4-0 per ton and the duty will remain in force till the 31st March, 1939.

### (iii) SALT.

In 1926, the Taxation Enquiry Committee recommended that the question of protection to salt, with a view to make India self-supporting in the matter of her salt supplies, should be referred to the Tariff Board. The Central Board of Revenue reported that there was no *prima facie* case for reference to the Tariff Board for two reasons. First, because in their view it was neither necessary nor desirable on general economic grounds or from the point of view of ensuring the country against shortage in time of war to dispense with sea-borne salt and, secondly, because there was insufficient evidence to show that enough white crushed salt could be produced in India to supply the needs of Bengal where most of the imported salt was consumed. The matter was debated in the Legislative Assembly in March, 1929, and the debates revealed that there was considerable dissatisfaction with the above conclusions. Government accordingly re-considered the position and referred the matter to the Tariff Board for enquiry. An Act was subsequently passed in 1931 imposing an additional duty of  $4\frac{1}{2}$  annas per maund on all salt imported into any port in British India except Aden and Perim, the duty being entirely remitted, subject to certain conditions, in the case of salt imported from any place in India (including Aden). The duty was subsequently reduced to  $2\frac{1}{2}$  annas in 1933 and its duration was extended from time to time till the 30th April, 1936. A Bill to extend its duration till the 30th April, 1938, and to reduce the duty to  $1\frac{1}{2}$  annas was introduced in the Legislative Assembly on the 8th April, 1936, and is now on the Statute Book as Act-II of 1936.



of annas 7 per cwt. on magnesium chloride until the 31st March, 1939, and protective duties at varying rates from annas 6 per cwt. to Rs. 5-3-0 per cwt. on acids and chlorides and sulphates of certain metals with effect up to the 31st March 1933. The protective duties imposed under the Act on chemicals, other than magnesium chloride, then lapsed. These were afterwards liable to the ordinary revenue duties imposed under the Indian Tariff Act, 1894, and subsequently by the amending Tariff Act of 1934. The protective duty on magnesium chloride was increased to Rs. 1-5-0 per cwt. or 25 per cent. *ad valorem*, whichever is higher, by the Indian Tariff Act, 1934 and will remain in force till the 31st March 1939.

The claims of the Indian kerosene oil industry to protection against the injury inflicted on it by a kerosene price war in progress in India between the Standard Oil Company of New York and the Royal Dutch Shell Group were considered by the Tariff Board which reported in 1929-30 that no case had been made out for safeguarding it. This view was accepted by the Government of India.

The question of granting protection to the manufacture of electric wires and cables was referred to the Tariff Board for enquiry in 1931. The Tariff Board reported in 1932 that the industry did not satisfy the conditions laid down by the Indian Fiscal Commission and did not recommend the grant of protection to it. The Government of India accepted this recommendation.

In the same year, the question of protection to the glass industry was also considered by the Tariff Board. The Government of India were unable to accept the view taken by the Board that the absence of satisfactory sources of soda ash in the country did not invalidate the claim for protection. They were of opinion that the high cost of indigenous raw materials in the United Provinces, which was the biggest glass producing province, as compared with the cost of imported raw materials at the ports of importation was a fatal obstacle to the development of the industry in spite of any protection that might be given. The claim to protection was not accepted, but concessions valid for 3 years in the shape of refunds of the entire import duty paid on soda ash of British or Colonial origin and the excess over 10 per cent. *ad valorem* in the case of non-British ash used by Indian glass manufacturers, were sanctioned.

#### (v) SAFEGUARDING DUTIES.

In 1932-33, the Government of India received representations from numerous minor industries for the adoption of legislative measures to combat the menace arising from the importation of foreign and particularly Japanese goods at phenomenally low prices. These representations were strongly supported by commercial bodies, Indian as well as European, throughout India and the Government of India introduced a Safeguarding of Industries Bill in the Legis-

1936.]

*Protection.*

75.

In 1929, the Tariff Board on similar grounds recommended the removal of the import duty of 15 per cent. levied on manila hemp, an ingredient in the manufacture of manila rope in India. The Government of India accepted the recommendation in principle, but have not been able to give effect to it on account of financial considerations. Similarly, the Government of India on the advice of the Tariff Board reduced the rate of duty on carbon blocks used in the manufacture of carbon brushes for electrical motors and generators from 25 per cent. to 15 per cent. *ad valorem* by notification under section 23 of the Sea Customs Act, 1878, with the approval of the Legislature in the autumn of 1935, and the duties imposed thereunder, though modified, have retained their protective character in the Indian Tariff Act, 1934.

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Several enquiries for Indian products by foreign Governments have also been received.

Standardization of specifications by the Department in a large number of cases has reduced the types and sizes in respect of a variety of articles required by Government Departments to the absolute minimum. This has enabled the manufacturers to improve their methods of production by concentrating on the specified types and sizes of articles and to lower their costs of production by increasing their output. Such standardization has been possible in respect of a large number of articles such as ammunition boots, postman's bags, enamelled sign boards, iron cash and railway travelling safes, galvanized steel buckets, putties, drills, pugree cloths, cardigan jackets, towels, blankets, threads and twines, bunting, tents, etc.

### (iii) RAILWAY MATERIAL.

The Railway Board has followed a similar policy in the purchase of stores by and on behalf of railways. Price preferences have been allowed in favour of the indigenous material and tenders for stores required by State-managed Railways are invited under the Rupee Tender System. State-managed Railways have instructions to obtain the orders of the Railway Board before accepting tenders for locomotive, carriage and wagon component parts from abroad, in cases where Indian manufacturers have also submitted quotations. In the case of other classes of stores manufactured in India, State-managed Railways submit quarterly returns giving details of all cases in which orders were placed for articles of foreign manufacture when quotations from Indian manufacturers were received, together with reasons for such action.

The purchase of a substantial part of the stores required by State-managed Railways has been entrusted to the Indian Stores Department which now deals with about 250 items. The value of these stores has increased from Rs. 7½ lakhs in 1927-28 to Rs. 278 lakhs in 1935-36.

Indian manufacturers have been encouraged in a variety of other ways. All orders for major bridge work and for the renewal of large bridges such as the Ava (Burma), Willingdon (East Indian Railway), Broach (Bombay, Baroda and Central India Railway), Chambal and Sindh (Great Indian Peninsula Railway) were placed for construction in India. The Indian Iron and Steel Company obtained a long term contract in 1931 for the production of pig iron for subsequent conversion into cast iron sleepers. The coal industry has been assisted by reducing the raisings from Railway collieries from 50 per cent. in 1926-27 to 33.3 per cent. in 1936-37 of the requirements of State-managed Railways, the balance being purchased from

consistently followed the policy of giving preference to articles of Indian manufacture in making purchases. Thus, Indian mills are supplying over 95 per cent. of the paper required by Government and can compete with foreign firms in the quality of the paper supplied both as regards the "protected" and "unprotected" varieties. Indian concerns have also, in consequence of Government encouragement, been able to supply over 75 per cent. of rag paper for permanent records, ivory finish paper, antique cream laid paper and envelopes which used to be obtained wholly from abroad some years ago. Thus, the average values of purchases of Indian paper and paper purchased through the Director General, India Store Department, London, during the six years 1928-29 to 1933-34 were Rs. 42 lakhs and Rs. 1 lakh, respectively, per annum, and the value of paper purchased through the London agency fell from Rs. 1,72,000 in 1928-29 to Rs. 14,000 in 1935-36.

After the adoption of new specifications developed in the laboratory attached to this Department in 1932, Indian manufactured inks are rapidly replacing the more expensive high class foreign inks which are now stocked in small quantities only to meet special requirements. Thus, the value of local fountain pen ink purchased during 1935-36 was Rs. 4,700 against Rs. 1,400 for imported special Superior fluid ink produced in India to the value of Rs. 24,200 was purchased in 1934-35 against Rs. 18,500 in 1929-30, while the value of imported ink under this category fell from Rs. 4,200 in 1929-30 to Rs. 1,800 in 1935-36.

In respect of sealing wax, sensitised ferro-paper, desk knives, scissors, glass articles, chinaware, etc., the entire needs of the Department are met by Indian concerns. Encouragement is also given to Indian cottage industries by local purchases of jaconet cloth, cotton twine, hemp twine, cotton thread, tags of various kinds, brushes, rubber rollers, stamp pads, wooden inkstands, stationery cabinets, pin cushions, thumb impression pocket cases, wax cloth, etc. These are chiefly made by hand from indigenous raw materials.

Even in cases, where the articles supplied are not quite up to the standard and the prices to be paid are higher, preference is given to Indian concerns. Thus, a straw-board mill, the only one in India then, was practically kept alive by Government ordering from it the major portion of their requirements at prices 55 per cent. above those of imported varieties, from 1926 to 1931. The mill now supplies straw-boards at a rate more in keeping with the price of imported boards and another mill has recently been started.

Even as regards articles which are not usually produced in India, encouragement is given to firms which have established factories in India. In orders for typewriters, preference is given to

In the United Provinces, a Stores Department was set up in 1921 as an experimental measure and made permanent in 1926. The purchase of stationery was also entrusted to it from 1931-32. An idea of the success of the policy of giving preference to articles of indigenous manufacture can be gathered from the fact that the percentage of the total value of Indian made articles to the value of the total purchases made in a year has gradually increased from 62 in 1929 to 81 in 1934. The Rupee Tender Rules were adopted by the Local Government in the year 1935.

The Government of Assam revised their Stores Rules, on the lines of the new Rules issued by the Government of India, in the year 1930 and the Government of Bihar and Orissa in 1931. The Government of the North-West Frontier Province adopted the rules of the Central Government in 1933.

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## INDEX.

*(The references are to page numbers.)*

## A

- Aerograph printing, 19.  
 Aeroplane engines, 49.  
 Alcohol, 52.  
 Aluminium—  
   badges, 48.  
   sulphates, extraction of, 52.  
 Ammunition boots, 79.  
 Anglo-Japanese Convention, 1904, 63.  
 Animal husbandry, 15.  
 Apprentices, 9, 10, 13, 15, 17, 44, 45.  
 Artemisia, 48.  
 Artisan(s), 10, 16, 17, 19, 20, 27, 29, 42.  
 Arts and Crafts, 7, 28, 33, 34.  
 Artware, 28, 32.  
 Asbestos, 49.  
 Asis, 22.  
 Assam—  
   financial assistance, 42.  
   government purchases, 80, 83.  
   handloom industry, 18.  
   marketing, 29.  
   sericulture, 21.  
   technical education, 10, 13, 14.  
 Assembly, Legislative, 53, 54, 64, 68, 74, 76.

## B

- Bamboo, 48, 70, 71.  
 Bangalore White Lead Syndicate, 78.  
 Bangle making, 24, 52.  
 Bank, Industrial, 42.  
 Barytes, 49.  
 Basket making, 13, 23, 25.  
 Bauxite, 52.  
 Bee-keeping, 24.  
 Bell-metal, 29, 51.  
 Bengal—  
   cottage industries, 23.  
   exhibitions, 30.  
   financial assistance, 40.  
   Government factories, 45, 46.

## B—contd.

## Bengal— contd.

- Government purchases, 80, 82.  
 handloom industry, 19, 26.  
 jute industry, 55, 56.  
 marketing, 29.  
 research, 51.  
 retrenchment, 6.  
 salt, 71.  
 sericulture, 20, 21, 49.  
 soap, 24.  
 soft coke, 53.  
 tanning, 45, 50, 51.  
 technical assistance, 34, 36.  
 technical education, 9, 10, 13, 14, 15.  
 unemployment relief, 23.  
 wool, 22.  
 Bengal Co-operative Silk Union, Ltd., 29.  
 Bengal Tanning Institute, 45, 50.  
 Bihar Engineering College, 10.  
 Bihar and Orissa—  
   coal, 53.  
   cottage industries, 25, 27, 28.  
   exhibition, 29, 30.  
   financial assistance, 40.  
   handloom industry, 18, 19, 20.  
   intelligence and technical assistance, 32, 35.  
   mica, 57.  
   retrenchment, 7.  
   sericulture, 21.  
   soft coke, 53.  
   stores purchase, 83.  
   Sugarcane Act, application of, 70.  
   surveys of industries, 33, 34, 49.  
   technical education, 10, 13, 14.  
   woollen industry, 22.  
 Biscuits, 33.  
 Blankets, 22, 41, 45, 79.  
 Boat building, 45.  
 Bobbins, 51.  
 Bombay—  
   cottage industries, 24.  
   financial assistance, 40.  
   handloom industry, 18, 19, 26.  
   intelligence and technical assistance, 32.

## C—contd.

Confectionery, 52.

Conference—

Fourth Industries, 2.

Fifth Industries, 41, 43, 47.

Sixth Industries, 6, 20, 21, 26, 30.

Seventh Industries, 20, 30.

Constitutional Reforms, *see* under Reforms, Constitutional.

Cooking ranges, 46.

Co-operative Societies, 26, 27, 28, 29, 30, 41, 42.

Copper, 45, 48, 49.

Copper plating, 45.

Copper rod, 74.

Cottage industries—

demonstrations in, 23.

financial aid to, 39, 40, 41.

Government purchases of . . . products, 81.

Institute, Patna, 22, 25, 27, 28.

Purdah section of . . . in Bihar and Orissa, 27.

silk weaving, 20, 21.

textiles, 18.

wool weaving, 22.

Cotton, 33, 38, 63.

Cotton textile industry, 19, 62—65.

Cutlery, 23, 25, 45.

Cylinder oil, 77, 78.

## D

Dairying, 15.

Delhi, 14, 23, 30, 33, 34, 52.

Demonstration(s)—

in Burma, in lacquer work and pottery, 30.

in cottage industries, 23.

in fly-shuttle looms fitted with jacquard machines in the Punjab, 19.

in handloom weaving, 18.

in sericulture in Madras, 20.

in wool weaving, 22.

object of . . . factories, 44.

of working of machinery, 24.

tannery and workshop, Bengal, 45.

Department of—

Commercial Intelligence and Statistics, 31, 33.

Industries and Labour, 2, 6.

Industries, Bengal, 6, 51.

Industries, Bihar and Orissa, 7, 25, 29.

Industries, Bombay, 6, 52.

## D—contd.

Department of—contd.

Industries, Central Provinces, 19.

Industries, Delhi, 30.

Industries, Madras, 6, 20, 52.

Industries, Punjab, 7, 28, 34, 52.

Industries, United Provinces, 34, 41.

Desk knives, 81.

Director(s) of Industries, 6, 7, 28, 41, 45.

Disinfectants, 41, 49, 50.

Distillery, 40.

Dobby, 18, 19, 52.

Dry cells, 52.

'Dufferin', the, 15.

Durries, 22, 24, 25.

Dutch East Indies, 54, 55.

Duties on—

cables, 73.

heavy chemicals, 72.

iron and steel, 59—61.

Japanese goods, 74.

kerosene oil, 73.

matches, 72.

paper, 70, 71.

raw materials, 74, 75.

salt, 71.

silver and gold thread, 72.

soda ash, 73.

sugar, 67—70.

textile goods, 62—66.

wheat, 72.

Dye, 'Turkey red', 35.

Dyeing—

experiments, 24.

experiments at Government Weaving Institute, Serampur, 51.

monograph on . . . by Central Provinces, 34.

practical instruction in, 19, 22, 23.

supply of materials for, 20.

## E

Electric(al)—

engineering, 11.

fans, 41, 78.

insulators, 33.



## H—contd.

Harmoniums, 23.  
Heavy chemical industries, 72.

## Hemp—

fibre, 52.  
Manila, 73.  
Sisal, 51.

Hides and skins, 23, 45, 51, 53, 54.  
Hides Cess Enquiry Committee, 53.  
High Commissioner for India, 32.  
Hire-purchase system, 39, 40, 43.  
Hosiery, 23, 24, 33, 41, 51.  
Hydro-electricity, 36, 39.

## I

## Imperial—

Agricultural Bureau, 32.  
Committee on Economic Consultation and  
Co-operation, 32.  
Conference, 1926, 47.  
Council of Agricultural Research, 11, 12,  
17, 44, 47, 68.  
Economic Conference, Ottawa, 32.  
Institute of Agriculture, 15.  
Institute of Sugar Research, 11, 68.  
Sericultural Committee, 5, 21; 49.  
Shipping Committee, 32.

India Store Department, London, 81, 82.

## Indian—

Air Force, 15.  
Box-sides, 50.  
Cable Company, 74.  
Dairy Diploma Course, 15.  
Institute of Science, Bangalore 16, 50.  
Iron and Steel Company, 13, 79.  
Jute Mills Association, 55-56.  
Lac Cess Committee, 53.  
Steel Wire Products, Ltd., 40.  
Trade Journal, 31, 32.  
Indian Stores Department—  
assistance to cottage industries, 23.  
bridge building industry, contribution to,  
35.  
purchase of Indian manufact res, 77-79.  
supplies to Provincial Governments, 82.  
tests of oils and minerals by, 49.

## I—contd.

Indo-Japanese Trade Convention, 64, 74.  
Industrial Commission, Indian, 1, 2, 3, 35,  
47.  
Industrial Directories, 34.  
Industrial Finance Committee, U. P., 42.  
Industrial Research Bureau, 34, 47.  
Industrial Research Council, 5, 47.  
Industrial surveys, 33.  
Industries Conferences, 4, 20, 21, 26, 30, 43,  
47.  
Industries Board, Indian, 2.  
Industries Re-organisation Committee, United  
Provinces, 41-42.  
Inks, 44, 52, 81, 82.  
Intelligence, industrial, 31, 32.  
Inventions of Government Departments, 36,  
51-52.  
Iron and steel, 32, 42, 43, 59, 60, 61.  
bounties to, 59, 60.  
Iron ore, 49.  
Ivory work, 25.

## J

Jaconet cloth, 81.  
Jacquard machine, 19, 39.  
Jaggery, 38.  
Jail manufactures, 45, 46.  
Jams, 41, 50.  
Jamshedpur, 11, 61.  
Jamshedpur Technical Institute, 11.  
Japan, 62-64, 74.  
Japanese goods, 28, 63, 64, 73.  
Jute, 49, 50, 51, 55, 56.

## K

Kamesam, Mr. S., 48.  
Kashmir, 48.  
Kerala Soap Factory, 44, 51.  
Kerosene, 32, 73.  
Khandsari sugar, 69, 70.

## L

Lac, 51, 53.  
Lacework, 13, 23.  
Lacquer, 7, 12, 22, 30, 51.  
Lances, 25.

## P

- Paint, 44, 48, 49, 78.  
 Paper, 48, 52, 70, 81. .  
 Paper mills, 38.  
 Pebrine disease, 49.  
 Pectin, 52.  
 Pencils, 41. -  
 Peppermint oil, 24.  
 Petrol, 32.  
 Piece-goods, 62, 63, 64, 65.  
 Pig-iron, 52, 79.  
 Pipes, 60, 78.  
 Pisciculture, 34.  
 Platinum wire, 52.  
 Ply-wood, 48.  
 Pochkanwala, Sir S. N., 42.  
 Points, railway, 80.  
 Polishes, 51.  
 Post boxes, 23.  
 Postman's bags, 79.  
 Pottery—  
   assistance in the Punjab, 25.  
   at Harcourt Butler Technological Institute, 50.  
   at Khurja, 24.  
   demonstrations in .... in Bengal, 23.  
   demonstrations in .... in Burma, 30.  
   improvements in .... in Bengal, 51.  
   pamphlets on, 34.  
   school at Insein, 23.  
 Preference—  
   order of .... for Government purchases, 76.  
   to Indian made articles, 77, 81, 82, 83.  
   under Ottawa Trade Agreement, 62.  
 Printing, 9, 20, 22, 74, 80.  
 Printing and Stationery, 80, 82.  
 Protection—  
   glass, 73.  
   heavy chemicals, 72, 73.  
   iron and steel, 59, 61.  
   kerosene oil, 73.  
   matches, 72.  
   paper, 70.  
   salt, 71.

## P—contd.

- Protection—contd.  
   sugar, 67-70.  
   textiles, 19, 62-66.  
   wire and wire nails, 60.  
 Public Accounts Committee, C. P., 7.  
 Punjab—  
   Banking Enquiry Committee, 39.  
   cottage industries, 23, 25, 28.  
   exhibitions, 29.  
   financial assistance, 37, 39, 40.  
   handloom industry, 18, 19, 27.  
   hydro-electricity, 36.  
   research, 52.  
   retrenchment, 7.  
   survey of industries, 33.  
   stores purchase, 80, 82.  
   technical education, 9, 10, 12, 14, 17.  
   technical intelligence, 32.  
   woollen industry, 22.

## Q

- Quinine factory, 46.

## R

- Railway material, 42, 43, 48, 60, 79, 80.  
 Railway Rates Advisory Committee, 57.  
 Rainy, Sir George, 68.  
 Reforms, Constitutional, 1, 2, 3, 42.  
 Resins, 52.  
 Retrenchment, 2, 5, 6, 7, 18.  
 Rice mill, 36, 42.  
 Royal—  
   Air Force Depot, Karachi, 16.  
   Commission on Agriculture, 3, 31, 49.  
   Dutch Shell Group, 73.

- Rubber, 55.  
 Rupee Tender Rules, 76, 77, 82, 83.  
 Russia, 49.

## S

- Salt, 71.  
 Sauds, 43, 50.  
 Santonin, 48, 49.  
 Saponin, 52.  
 Sapwood, 43.  
 Sarawak, 55.  
 Saw mills, 38, 42, 45, 46.  
 Sci-ors, 81.  
 Security Printing Press, 9, 45.  
 Sericulture, 20, 21, 29, 49, 65.

## T—contd.

Textiles—*contd.*

protection to, 62-66.

supply of appliances, 39.

Thomason Civil Engineering College, Roorkee, 11.

Til, 50.

Tiles, 33.

Timber, 45, 46, 48, 50.

Tin, 56.

Tin plate, 61.

Tobacco course, 15.

Toilet goods, 25.

Towels, 79.

Toys, 25.

Trade Commissioner, Indian, 31, 32.

Tube wells, 45.

'Turkey Red' cloth, 35.

Twine, 79, 81.

Twist and yarn, duties on, 62.

Typewriters, 81.

## U

Umbrella making, 23, 34.

Union of South Africa, 73.

United Kingdom—

competition with Indian mill products, 64.

consumption of tea in the, 54.

imports of Indian raw cotton, 63.

imports of pig iron, 61.

preference to .... products, 62.

scholarships for training in .... in marine engineering, 9.

training for apprentices from Jamalpur Workshops in the, 16.

United Provinces—

cottage industries, 22, 24, 28.

demonstration factories, 44.

exhibitions, 30.

financial assistance, 41, 42.

glass, 73.

handloom industry, 20, 27.

hydro-electricity, 36.

stores purchase, 53.

L99DIL—100—22-9-36—GIPS

## U—contd.

United Provinces—*contd.*

sugar, 12, 70.

Sugarcane Act, application of, 70.

survey of industries, 34.

technical education, 9, 10, 13, 14, 15.

## V

Vacuum brakes, 80.

Veneers, 48.

Victoria Jubilee Technical Institute, Bombay, 16.

Victoria Technical Institute, Madras, 27.

Vishwakarma Oil and Flour Mills, Ltd., 40.

## W

Wage stipends, 16.

Wagons, 50.

Waterproofing, 9, 50.

Wax cloth, 81.

Weaving—

handloom, 18, 19, 30.

institutes and schools, 7, 13, 16, 18, 19, 50, 52.

Wheat, 72.

White lead, 73.

Willingdon Bridge, 35, 70.

Willingdon, Lord, 4.

Wire, steel, 59, 60.

Wood—

Air Seasoning, 13.

Acen process, 13.

pulp, 71.

Woollen industry, 22, 24, 45, 46, 66.

Worsted, 66.

## Y

Yarn—

consumption by handloom weavers, 18.

facilities for supply of .... for the development of handloom industry, 20, 27.

for blanket weaving and *torie* making in the United Provinces, 24.

preference to British, 63, 64.

protective duties on cotton, 62, 64.

protective duties on .... effect of, on handloom industry, 19.